

WHAT IS CLAIMED IS:

- 1 1. A method of operating a differentiated service network having a plurality of  
2 routers, said method comprising:  
3 determining an operating condition at a first router; and  
4 propagating an indication of said operating condition at said first router to a  
5 second router.
- 1 2. The method of claim 1, wherein said first router comprises a core router and  
2 said second router comprises an edge router.
- 1 3. The method of claim 1, further comprising:  
2 determining an operating condition at a third router; and  
3 propagating an indication of said operating condition at said third router to said  
4 second router.
- 1 4. The method of claim 1, wherein said operating condition comprises a status of  
2 stability.
- 1 5. The method of claim 1, wherein said indication comprises a signal  
2 corresponding to a network traffic status.

6. The method of claim 5, wherein said network traffic status is represented by a color.

7. The method of claim 1, further comprising said second router making a profile change recommendation to a network operator.

8. The method of claim 1, further comprising said second router renegotiating a constraint of said network.

9. The method of claim 8, wherein said renegotiating comprises selecting from a plurality of constraints.

10. A method of operating a differentiated service network having a plurality of routers, said method comprising:

receiving an indication of an operating condition at a first router; and

adjusting at least one parameter of a constraint based on said indication of said operating condition.

11. The method of claim 10, further comprising:

determining said operating condition at said first router; and

propagating said indication of the operating condition at said first router to a second router.

1 12. The method of claim 11, wherein said first router comprises a core router and  
2 said second router comprises an edge router.

1 13. The method of claim 12, further comprising:  
2 determining an operating condition at a third router; and  
3 propagating an indication of said operating condition at said third router to said  
4 second router.

1 14. The method of claim 10, wherein said operating condition comprises a status  
2 of stability.

1 15. The method of claim 10, wherein said indication comprises a signal  
2 corresponding to a network traffic status.

1 16. The method of claim 15, wherein said network traffic status is represented by a  
2 color.

1 17. The method of claim 10, wherein said adjusting comprises said second router  
2 renegotiating a constraint of said network.

1 18. The method of claim 17, wherein said renegotiating comprises selecting from a  
2 plurality of constraints.

1 ~~19.~~ A differentiated service network comprising:  
2 a first router; and  
3 a second router coupled to said first router, said first router being associated  
4 with a first entity to determine an operating condition at the first router.

1 20. The differentiated service network of claim 19, wherein said first entity  
2 associated with said first router propagates an indication of said operating condition  
3 at the first router device to said second router.

1 21. The differentiated service network of claim 20, wherein said second router is  
2 associated with a second entity that determines an operating condition at said  
3 second router.

1 22. The differentiated service network of claim 21, wherein said second entity  
2 renegotiates a constraint of said network.

1 23. The differentiated service network of claim 22, wherein renegotiating  
2 comprises selecting from a plurality of constraints.

1 24. The differentiated service network of claim 20, wherein said operating  
2 condition comprises a status of stability.

1 25. The differentiated service network of claim 24, wherein said indication  
2 comprises a signal corresponding to a network traffic status.

1 26. The differentiated service network of claim 19, wherein said first entity  
2 comprises a QoS Firewall entity.

1 27. The differentiated service network of claim 19, wherein said first router  
2 comprises a core router and said second router comprises an edge router.